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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/099,769	03/14/2002	Gerald Wojcik	2156-090A	4845

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EXAMINER

OLTMANS, ANDREW L

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 03/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/099,769	Applicant(s) WOJCIK ET AL.	
	Examiner Andrew L Oltmans	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,7-13,15-22,24,25,28,30-36,38 and 41-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 44-57 is/are allowed.
- 6) ☒ Claim(s) 1,2,5,7-13,16-22,24,25,28,30-36 and 41-43 is/are rejected.
- 7) ☒ Claim(s) 15,38,58 and 59 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of the Claims

1. Claims 1-2, 5, 7-13, 15-22, 24-25, 28, 30-36, 38, and 41-59 remain pending in this application. The claims, as amended have been rejected, as shown below. Because the grounds for rejection are the same for the amended claims, this Office Action is FINAL.

Claim Rejections - 35 USC § 102

NOTE: With respect to newly added claims 58 and 59, it is noted that the examiner has interpreted the claim to mean that the soluble aluminum salt is present and is selected from the group recited in claims 58 and 59.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Kresge et al. 5,902,767

3. Claims 24-25, 28, 33 and 42-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Kresge et al. 5,902,767 (Kresge).

Kresge teaches a composition comprising a source of meta-tungstate ions, including ammonium meta-tungstate, a soluble material comprising zirconium, including zirconium nitrate (col 3, lines 62-63), and ammonium hydroxide, wherein the composition is free of chromium,

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and has at least one additives, including a pH adjusting agent, as instantly recited in claims 24-25, 28, 33 and 42-43 (col 10):

Example 4

20 Five hundred grams of $\text{ZrOCl}_2 \cdot 8\text{H}_2\text{O}$ were dissolved with stirring in 6.5 liters of distilled water. To this solution was added a mixture of 500 grams of distilled water and 7.5 grams of $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$. Finally a solution containing 263 grams of concentrated NH_4OH , 500 ml of distilled H_2O , and 25 54 grams of $(\text{NH}_4)_2\text{H}_2\text{W}_{12}\text{O}_{42} \cdot x\text{H}_2\text{O}$ was added dropwise to the iron/zirconium solution over a 30-45 minute period. The pH of the final composite was adjusted to approximately 9 by the addition of concentrated ammonium hydroxide. The

The claims do not distinguish over the teachings of Kresge.

It is noted that the recitation of "conversion coating composition" in the preamble of claim 24 does not distinguish over the teachings of Kresge because. The recitation "conversion coating composition" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Wada et al. 6,193,815 B1

5. Claims 1-2, 5, 7-14, 16-19, 21-25, 28, 30-36 and 41-43 are rejected under 35

U.S.C. 103(a) as being unpatentable over Wada et al. 6,193,815 (Wada).

Wada teaches a conversion coating composition and the method of using the conversion coating composition to form a conversion coating, wherein the composition is free of Cr as recited in claims 1, 21, 24 and 42 (abstract and col 2, lines 36-41). Wada teaches that the solution may include zirconium in the amount instantly claimed, as recited in claims 1, 10-13, 24 and 33-36 (col 4):

35 The source of fluoride in the composition and surface treatment bath according to the present invention can be such fluorine-containing acids as hydrofluoric acid (i.e., HF), fluotitanic acid (i.e., H_2TiF_6), fluosilicic acid (i.e., H_2SiF_6), and fluozirconic acid (i.e., H_2ZrF_6), as well as any
40 of their neutral and acid salts, but again the selection of the fluoride is not critical. The fluoride content in the surface treatment bath should be in the range from 0.010 to 12 g/L, preferably is from 0.050 to 5.0 g/L, and more preferably is from 0.10 to 3.0 g/L, in each case calculated as fluorine.

[emphasis added by examiner]

Wada teaches that the solution may include tungstate (encompassing the types of tungstates recited in claim 2 and 5) in the amount instantly claimed, as recited in claims 1, 5, 7-9 (col 4):

and strongly paint-adherent coating. The accelerator concentration in the surface treatment bath must be in the range

(col 5):

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from 0.010 to 2.0 g/L and is preferably in the range from 0.10 to 1.1 g/L. No acceleration of the film-forming reaction

(col 5):

The tungstic acid/tungstate source is not critical as long as it is water-soluble; however, again the use of the sodium salt (i.e., Na_2WO_4) or potassium salt (i.e., K_2WO_4) of tungstic acid is preferred because of their relatively low cost.

[emphasis added by examiner]

Wada teaches the temperature, the additives, the application steps and the cleaning steps recited in claims 2, 16-17, 19, 22-23, 25 and 43 (col 5, lines 50-65; col 6, lines 5-19; col 7, lines 5-34). Wada teaches the following pH, which overlaps the pH recited in claims 18 and 41 (col 5):

tion. It becomes very problematic to obtain a highly corrosion-resistant and strongly paint-adherent coating at a pH in excess of 4.5. The more preferred pH range is 1.3 to 3.0. The pH of the surface treatment bath according to the present invention can be adjusted by adding an acid, e.g., 50 nitric acid, sulfuric acid, hydrofluoric acid, or the like to lower the pH, or by adding an alkali, e.g., sodium hydroxide, sodium carbonate, ammonium hydroxide, or the like to raise the pH.

Wada fails to meet all the limitations of the instant claims in that Wada does not explicitly teach an embodiment having *meta*-tungstate or the pH range recited in instant claims 18 and 41.

With respect to the particular tungstate (i.e. *meta*-tungstate), the teaching of Wada renders the particular configuration claimed, *meta*-tungstate, obvious (see e.g. col 5, line 21-25). The various configurations of tungstate are genus to the particular *meta*- configuration claimed.

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The species meta-tungstate is obvious because the genus tungstate is small and limited, the Wada reference teaches that the particular source of tungstate is not critical, the tungstates are all similar in structure, since all are forms of tungstate, the tungstates are used for similar applications, namely coating additives, and wherein the coating art is a predictable art, see MPEP 2144.08 (II) (A). As evidence of the obviousness of the role of the particular tungstate as a coating additive, the examiner points to Nikaido et al. 3,963,568 wherein the coating additive tungstate is shown to have similar structure, similar use and is part of a small genus of tungstates (col 3, lines 33-45).

With respect to pH, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the pH taught by the reference overlaps that of the instant claims, In re Peterson, 65 USPQ2d 1379, In re Malagari, 182 USPQ 549, and MPEP 2144.05.

Dolan 5,449,415

6. Claims 1-2, 5, 7-14, 16-24, 28, 30-37 and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dolan 5,449,415 (Dolan).

Dolan teaches a conversion coating composition and the method of using the conversion coating composition to form a conversion coating, wherein the composition is free of Cr as recited in claims 1, 21, 24 and 42 (abstract; col 1, lines 24-31). Wada teaches that the solution may include zirconium in the amount instantly claimed, as recited in claims 1, 10-13, 24 and 33-36 (col 12):

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- 40 (A) at least about 0.15M/kg of a component of fluo-
rometallate anions, each of said anions consisting of
(i) at least four fluorine atoms, (ii) at least one atom
of an element selected from the group consisting of
titanium, zirconium, hafnium, silicon, aluminum,
45 and boron, and, optionally, one or more of (iii)
ionizable hydrogen atoms and (iv) oxygen atoms;
(B) a component of divalent or tetravalent cations of
elements selected from the group consisting of
cobalt, magnesium, manganese, zinc, nickel, tin,
50 copper, zirconium, iron, and strontium in such an
amount that the ratio of the total number of cations
of this component to the number of anions in com-
ponent (A) is at least about 1:5 but not greater than
about 3:1;

[emphasis added by examiner]

Dolan teaches that the solution may include tungstate (encompassing the types of tungstates recited in claim 2 and 5) in the amount instantly claimed, as recited in claims 1, 5, 7-9 (col 13):

2. A composition according to claim 1, which also includes a component (G) selected from the group consisting of tungstate, molybdate, silicotungstate, and silicomolybdate anions in an amount such that the ratio of the total moles of tungsten and molybdenum in the 5 composition to the total moles of titanium, zirconium, hafnium, silicon, aluminum, and boron in component (A) is not less than about 0.03 and which optionally also includes one or both of a component (F) of dissolved

[emphasis added by examiner]

Dolan teaches the temperature, the additives, the application steps, the deoxidation (i.e. acid cleaning) steps and the cleaning steps recited in claims 16-17, 19-20, 22-23 and 43 (col 5, line 41 to col 6, line 39; col 7, lines 10-11 and 28-31 and 48-51; col 8, lines 3-8). Dolan teaches that

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soluble aluminum compounds may be added, as recited in claims 14 and 37 (col 2, line 19).

Dolan teaches the following pH, which overlaps the pH recited in claims 18 and 41 (col 2):

working composition a pH value that is, with increasing preference in the order given, not less than 0.5, 1.0, 1.3, 1.7, 1.8, 1.9, or 2.0 and independently is, with increasing preference in the order given, not more than 6.7, 6.0, 5.5, 5.0, 4.5, 4.0, 3.8, 3.7, 3.6, or 3.5; and, optionally, one or more of:

Dolan fails to meet all the limitations of the instant claims in that Dolan does not explicitly teach an embodiment having *meta*-tungstate or the pH range recited in instant claims 18 and 41.

With respect to the particular tungstate (i.e. *meta*-tungstate), the teaching of Dolan renders the particular configuration claimed, *meta*-tungstate, obvious (see e.g. col 13, line 3). The various configurations of tungstate are genus to the particular *meta*- configuration claimed. The species *meta*-tungstate is obvious because the genus tungstate is small and limited, the tungstates are all similar in structure, since all are forms of tungstate, the tungstates are used for similar applications, namely coating additives, and wherein the coating art is a predictable art, see MPEP 2144.08 (II) (A). As evidence of the obviousness of the role of the particular tungstate as a coating additive, the examiner points to Nikaido et al. 3,963,568 wherein the coating additive tungstate (including *meta*-tungstate) is shown to have similar structure, similar use and is part of a small genus of tungstates (col 3, lines 33-45).

With respect to pH, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the pH taught by the

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reference overlaps that of the instant claims, In re Peterson, 65 USPQ2d 1379, In re Malagari, 182 USPQ 549, and MPEP 2144.05.

Allowable Subject Matter

7. Claims 44-50 (method) and 51-57 (composition) are allowed.
8. Claims 15 (method), 38 (composition), 58 (method), and 59 (composition) are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

A primary reason for the allowance of claims 15, 38 and 58-59, under the above conditions, and claim 44-57 is that the prior art fails to teach or suggest, either alone or in combination, the instantly claimed compositional range of soluble aluminum in the composition and the method of using the composition, as instantly claimed.

Response to Arguments

9. Applicant's arguments filed December 23, 2003 have been fully considered but they are not persuasive. Claims 1-2, 5, 7-13, 15-22, 24-25, 28, 30-36, 38, and 41-59 remain pending in this application.
10. With respect to applicant's argument that the new claim language including the transitional phrase, "consisting essentially of", patentably distinguishes over each of the Kresge et al., Wada et al., and Dolan. Applicant argues that each of Kresge, Wada and Dolan require additional elements that produce a materially different coating composition. For example, applicant argues that Kresge requires iron or manganese in order to produce the catalysts of their

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invention. Applicant argues that Wada contains titanium and phosphate ions as essential elements. Applicant further argues that Dolan requires phosphorous-containing inorganic oxyanions or phosphonate ions as required elements to the coating. The examiner disagrees with applicant's assertion that the added components are excluded by the present claim language. The examiner acknowledges that the claim language excludes components that materially affect the basic and novel characteristics of the claimed invention. The examiner further notes that the claim language includes a broad list of optional ingredients, wherein the ingredients in (for example) claim 1 include neutralization agents, soluble aluminum salts, surfactants, accelerators, dyes, organic polymers, buffering agents and/or pH adjusting agents. Since the claim language includes a number of optional ingredients that include or have similar chemical roles as the "required" elements of Kresge, Wada and Dolan, the argument that they create a materially different coating is not persuasive. Therefore, the argument is not found persuasive.

11. With respect to applicant's argument that Kresge is not an aqueous composition and is not an aqueous conversion coating, the argument is not found persuasive. The examiner notes that the claims rejected in view of Kresge are merely compositions and are not limited to conversion coating applications. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art.

See In re Casey, 152 USPQ 235 (CCPA 1967) and In re Otto, 136 USPQ 458, 459 (CCPA 1963).

The composition of Kresge includes all of the claimed components. The intended use of Kresge

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to make a catalyst does not patentably distinguish over the claimed composition. Further, the examiner notes that the dissolution in water is sufficient to produce an aqueous composition. In view of all of the above, the argument is not found persuasive.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

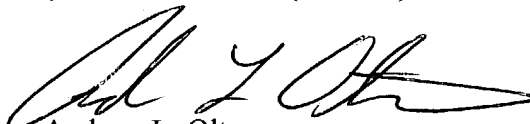
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L Oltmans whose telephone number is 571-272-1248. The examiner can normally be reached from 7:00 to 3:30, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'A. L. Oltmans', is positioned above the printed name.

Andrew L. Oltmans
Patent Examiner
Art Unit 1742

/alo